

REMARKS

In light of the above amendments and following remarks, reconsideration and allowance of this application are respectfully requested.

It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103 or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Claims 4, 5, 9 and 10, and amended claims 1 and 6 are in this application. Claims 2, 3, 7 and 8 have been canceled herein.

At page 2 of the outstanding Office Action of November 20, 2003, the Examiner rejected claim 1-4 and 6-9 under 35 U.S.C. §102(e) as being anticipated by Hanson et al. (U.S. Patent No. 6,460,094). Applicants respectfully traverse the rejection. Claims 2, 3, 7 and 8 have been canceled herein, the elements thereof being incorporated into independent claims 1 and 6, respectively, with slight modifications.

Amended independent claim 1, recites in part, “A signal input and output apparatus...wherein discrimination of the type of control signals in said signal discrimination changeover means is carried out **on the basis of an amplitude of the control signal...**”
(Underlining and bold added for emphasis.)

It is respectfully submitted that Hanson teaches peripheral devices configured to detect the type of interface to which they are connected by receiving a binary on or off signal at one or more connection pins to determine where the device is connected to and configure themselves accordingly (column 1, lines 7-11 and column 2, lines 29-32). In other words, a discrimination means is mentioned in Hanson for discriminating between USB signals and PS2 signals based upon a binary existence of a signal. However, the discrimination means is not conducted by discriminating amplitudes of the incoming control signals, as in amended independent claim 1. Indeed, the discriminating in Hanson is determined by the level of a binary signal on each pin as shown in fig. 5.

The present invention teaches a signal input and output apparatus that can be connected to several different types of devices. Each of these devices can have different types of connectors each being accommodated by a corresponding jack in the input/output apparatus. The jacks are connected in a series configuration and are thus connected along a single signal path. Each plug that enters the jack, and therefore each input data, generates a different signal level or different voltage level with various corresponding amplitudes. For example, an RS-232C signal and a LANC signal vary between different voltage ranges, thus allowing the discriminating means to differentiate input plugs based on the voltage levels of the input signals the plugs generate. Support for this feature can be found at page 11, lines 12-24, page 13, lines 19-23 and page 21, lines 17-24. Therefore, amended independent claim 1 is believed to be distinguishable from Hanson.

For similar reasons, it is believed that amended independent claim 6 is also distinguishable from Hanson as applied by the Examiner. Further, claims 4 and 9 are dependent

from one of amended independent claims 1 and 6, and due to such dependency are believed to be distinguishable over Hanson as applied by the Examiner for at least the reasons described above.

Applicants therefore, respectfully request the rejection of claims 1-4 and 6-9 under 35 U.S.C. §102(e) be withdrawn.

At page 4 of the outstanding Office Action of November 20, 2003, the Examiner rejected claims 1-4 and 6-9 under 35 U.S.C. §102(e) as being anticipated by Emmert et al. (U.S. patent No. 6,334,160). Applicants respectfully traverse the rejection. Claims 2, 3, 7 and 8 have been canceled herein, the elements thereof being incorporated into independent claims 1 and 6, respectively, with slight modifications.

It is respectfully submitted that Emmert teaches multiplexing USB signals onto IEEE 1284 signals, thus allowing a single connector on a device to support both communication protocols by receiving a binary on or off signal at one or more ASIC pins to determine where the device is connected (column 1, lines 7-11 and column 4, lines 1-5). In other words, a discrimination means is mentioned in Emmert for discriminating between USB signals and IEEE 1284 signals based upon a binary existence of a signal. However, the discrimination means is not conducted by discriminating amplitudes of the incoming control signals, as in amended independent claim 1. Indeed, the discriminating is determined by setting ASIC pins to either a logical one or a logical zero (column 4, lines 3-5).

The present invention teaches a signal input and output apparatus that can be connected to several different types of devices. Each of these devices can have different types of connectors each being accommodated by a corresponding jack in the input/output apparatus. The jacks are connected in a series configuration and are thus connected along a single signal path. Each plug that enters the jack, and therefore each input data, generates a different signal level or

different voltage level with various corresponding amplitudes. For example, an RS-232C signal and a LANC signal vary between different voltage ranges, thus allowing the discriminating means to differentiate input plugs based on the voltage levels of the input signals the plugs generate. Support for this feature can be found at page 11, lines 12-24, page 13, lines 19-23 and page 21, lines 17-24. Therefore, amended independent claim 1 is believed to be distinguishable from Emmert.

For similar reasons, it is believed that amended independent claim 6 is also distinguishable from Emmert as applied by the Examiner. Further, claims 4 and 9 are dependent from one of amended independent claims 1 and 6, and due to such dependency are believed to be distinguishable over Emmert as applied by the Examiner for at least the reasons described above.

Applicants therefore, respectfully request the rejection of claims 1-4 and 6-9 under 35 U.S.C. §102(e) be withdrawn.

At page 7 of the outstanding Office Action of November 20, 2003, the Examiner rejected claims 1-4 and 6-9 under 35 U.S.C. §102(b) as being anticipated by Jolley et al. (U.S. patent No. 5,832,244). Applicants respectfully traverse the rejection. Claims 2, 3, 7 and 8 have been canceled herein, the elements thereof being incorporated into independent claims 1 and 6, respectively, with slight modifications.

It is respectfully submitted that Jolley teaches a multiple interface input/output port that enables a peripheral device to be connected to any one of a plurality of different types of interface busses (column 1, lines 7-12) and the interface busses are discriminated based on the determination of which of their lines are grounded (column 3, lines 25-27). In other words, a discrimination means is mentioned in Jolley for discriminating between SCSI signals and IEEE 1284 signals. However, the discrimination means is not conducted by discriminating amplitudes

of the incoming control signals, as in amended independent claim 1. Indeed, the discriminating is determined by which of the selected lines are grounded.

The present invention teaches a signal input and output apparatus that can be connected to several different types of devices. Each of these devices can have different types of connectors each being accommodated by a corresponding jack in the input/output apparatus. The jacks are connected in a series configuration and are thus connected along a single signal path. Each plug that enters the jack, and therefore each input data, generates a different signal level or different voltage level with various corresponding amplitudes. For example, an RS-232C signal and a LANC signal vary between different voltage ranges, thus allowing the discriminating means to differentiate input plugs based on the voltage levels of the input signals the plugs generate. Support for this feature can be found at page 11, lines 12-24, page 13, lines 19-23 and page 21, lines 17-24. Therefore, amended independent claim 1 is believed to be distinguishable from Jolley.

For similar reasons, it is believed that amended independent claim 6 is also distinguishable from Jolley as applied by the Examiner. Further, claims 2 and 9 are dependent from one of amended independent claims 1 and 6, and due to such dependency are believed to be distinguishable over Jolley as applied by the Examiner for at least the reasons described above.

Applicants therefore, respectfully request the rejection of claims 1-4 and 6-9 under 35 U.S.C. §102(b) be withdrawn.

At page 9 of the outstanding Office Action of November 20, 2003, the Examiner rejected claim 5 and 10 under 35 U.S.C. §103(a) as being anticipated by Hanson et al. (U.S. Patent No. 6,460,094). Applicants respectfully traverse the rejection.

Claims 5 and 10 depend either directly or indirectly from one of amended independent claims 1 and 6, and, due to such dependency, are also believed to be distinguishable from Hanson for at least the reasons previously described. Therefore, claims 5 and 10 are believed to be distinguishable from Hanson.

Applicants therefore, respectfully request the rejection of claims 5 and 10 under 35 U.S.C. §103(a) be withdrawn.

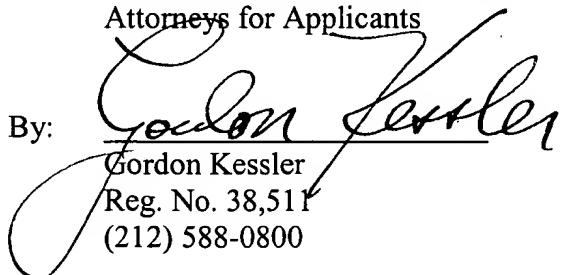
It is to be appreciated that the foregoing comments concerning the disclosures in the cited prior art represent the present opinions of the applicants undersigned attorney and, in the event, that the Examiner disagrees with any such opinions, it is requested that the Examiner indicate where in the reference or references, there is the bases for a contrary view.

Please charge any fees incurred by reason of this response to Deposit Account No. 50-0320.

Respectfully submitted,

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